

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

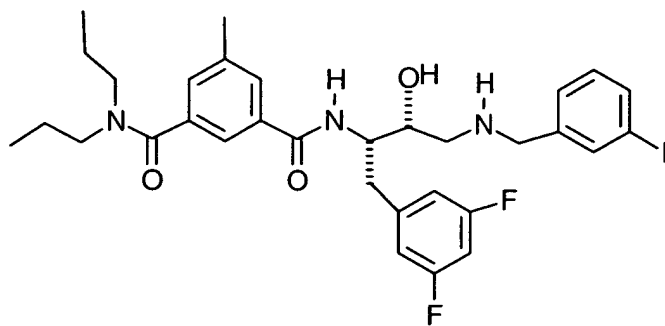
1-53. (Canceled)

54. (Currently Amended) A method for crystallizing a human beta secretase ~~molecule or molecular complex~~ comprising:

preparing purified human beta secretase having amino acid sequence SEQ ID NO:1 at a concentration of about 1 mg/ml to about 80 mg/ml in the presence of an inhibitor; and

crystallizing human beta secretase from a solution comprising about 17% by weight to about 22% by weight PEG 3000 and having a pH of about 3.5 to about 5.5,

wherein the inhibitor is



55. (Previously Presented) The method of claim 59 wherein the salt is selected from the group consisting of sodium chloride, ammonium sulfate, magnesium sulfate, lithium sulfate, and combinations thereof.

56. **(Original)** The method of claim 54 wherein the solution has a pH of about 4.0 to about 4.7.
57. **(Original)** The method of claim 54 wherein the solution comprises a buffer having a pK_a of about 3 to about 6.
58. **(Canceled)**
59. **(Original)** The method of claim 54 wherein the solution further comprises a salt.
60. **(Original)** The method of claim 59 wherein the salt is present in a concentration of about 0.001 M to about 0.5 M.
61. **(Currently Amended)** The method of claim 54 wherein the solution ~~includes~~ further comprises up to about 40% by weight ~~organic solvent~~ dimethyl sulfoxide (DMSO).
62. **(Canceled)**
63. **(Original)** The method of claim 54 wherein the solution further comprises up to about 40% by weight ethylene glycol or glycerol.
64. **(Canceled)**
65. **(Original)** The method of claim 54 wherein the inhibitor is present at a concentration of about 0.1 to about 10 mM.
- 66-67. **(Canceled)**

68. (Original) The method of claim 54 wherein the human beta secretase is isolated from mammalian cells.

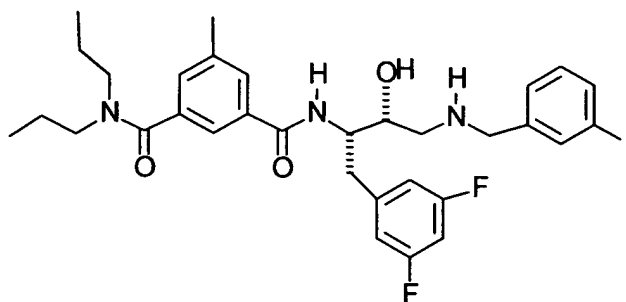
69. (Original) The method of claim 68 wherein the mammalian cells are CHO-K1 cells.

70. (Original) The method of claim 68 wherein the mammalian cells are HEK 293 cells.

71. (Previously Presented) The method of claim 54 wherein the human beta secretase is isolated from insect cells as part of a Baculovirus expression system.

72-84. (Canceled)

85. (Currently Amended) A The crystal of ~~claim 84~~ beta secretase having amino acid sequence SEQ ID NO:1, wherein the crystal has the trigonal space group symmetry P3₂21 and comprises a unit cell having dimensions of a, b, and c, wherein $a = b = 112 \pm 20 \text{ \AA}$, $c = 110 \pm 20 \text{ \AA}$, $\alpha = \beta = 90^\circ$, and $\gamma = 120^\circ$, and wherein the crystal further comprises an inhibitor, and the inhibitor is



86-107. (Canceled)